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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/883,196	06/19/2001	Ben Hitt	CSIL-01P-006	9854

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EXAMINER
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HIRL, JOSEPH P

ART UNIT	PAPER NUMBER
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2121

DATE MAILED: 03/15/2004

11

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/883,196

Applicant(s)

HITT, BEN

Examiner

Joseph P. Hirl

Art Unit

2121

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 21-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 21-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>8</u> . | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. This Office Action is in response to an AMENDMENT entered December 29, 2003 for the patent application 09/883,196 filed on June 19, 2001.
2. The First Office Action of November 5, 2003 is fully incorporated into this Final Office Action by reference.
3. The claims and only the claims form the metes and bounds of the invention. "Office personnel are to give the claims their broadest reasonable interpretation in light of the supporting disclosure. *In re Morris*, 127 F.3d 1048, 1054-55, 44USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in the claim are not read into the claim. *In re Prater*, 415 F.2d, 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969)" (MPEP p 2100-8, c 2, I 45-48; p 2100-9, c 1, I 1-4). The Examiner has full latitude to interpret each claim in the broadest reasonable sense. Examiner will reference prior art using terminology familiar to one of ordinary skill in the art. Such an approach is broad in concept and can be either explicit or implicit in meaning.

4. Examiner's Opinion

Para 3 above applies. Generally speaking, claim 1 is nothing more than data assembled (partitioned) into a vector which may or may not be classified, and if not classified is so identified as not being classified (atypical). This is not the material that substantiates justification as novel and non-obvious. The dictionary anticipates the applicants invention.

***Claim Rejections - 35 USC § 101***

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 1-8 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The practical application test requires that a useful, concrete and tangible result be accomplished as a tangible application of the technological arts. Claims 1-8 represent abstract methodology capable of being performed by hand and therefore not in the technological art. Further, the wording of the claims does not convey a tangible and useful result. The consequence is non-statutory.

7. Claims 21-23 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The practical application test requires that a useful, concrete and tangible result be accomplished. The wording of the claims does not convey a tangible and useful result.

***Claim Rejections - 35 USC § 112***

8. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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9. Claims 1-8 and 21-23 are rejected under 35 USC 112, first paragraph because current case law (and accordingly, the MPEP) require such a rejection if a 101 rejection is given because when Applicant has not in fact disclosed the practical application for the invention, as a matter of law there is no way Applicant could have disclosed how to practice the undisclosed practical application. This is how the MPEP puts it:

("The how to use prong of section 112 **incorporates as a matter of law** the requirement of 35 U.S.C. 101 that the specification disclose as a matter of fact a practical utility for the invention.... If the application fails as a matter of fact to satisfy 35 U.S.C. 101, then the application also fails as a matter of law to enable one of ordinary skill in the art to use the invention under 35 U.S.C. § 112."); In re Kirk, '376 F.2d 936, 942, 153 USPQ 48, 53 (CCPA 1967) ("Necessarily, compliance with § 112 requires a description of how to use presently useful inventions, **otherwise an applicant would anomalously be required to teach how to use a useless invention.**"). See, MPEP 21107.01 (IV), quoting In re Kirk (emphasis added).

Therefore, claims 1-8 and 21-23 are rejected on this basis.

### ***Response to Arguments***

10. The objection to the drawings is withdrawn.
11. With the cancellation of claims 9-20, the rejection of claims 9-20 under 35 USC 112, first paragraph is withdrawn.
12. Claims 21-23 are rejected under 35 USC 112, first paragraph, as noted above.
13. The objection to the specification at pages 8-18 remains since the abstract relates to the subject material.
14. Applicant's arguments filed on December 29, 2003 related to the general remarks and claims have been fully considered but are not persuasive.

In reference to Applicant's argument:

Applicant's Representatives discussed the merits of the rejection under 35 U.S.C.112, first paragraph. Applicant's Representatives requested clarification as to which portions of the claim merited the rejection under § 112. The Examiner failed to provide Applicant's Representatives with a discussion of particular portions of the claim that were believed to merit 112 rejection.

Examiner's response:

The Interview Summary, dated January 6, 2004, identifies that claim 1 was discussed and that "thirty minutes was devoted to the material of the outline contained in the attachment" wherein the closest issue to the above subject was a discussion of claims 9-23 in light of the specification. There is nothing in the Interview Summary that relates to 35 USC 112, first paragraph. The Examiner wishes to make obvious that it is the obligation of the inventor to fully disclose the process such that one of ordinary skill in the art can replicate the invention. The Examiner is not the inventor's surrogate. The Examiner has no obligation to identify that which is needed to bring the application into allowance. The Examiner's notes with interest that the related claims have been either amended or cancelled.

In reference to Applicant's argument:

The specification has been objected to because it "does not sufficiently disclose the invention [the learning algorithm described in the cited passage of the abstract] such that one of ordinary skill in the art can replicate the invention without undue experimentation." Office Action at p. 3.

Examiner's response:

The objection remains. The abstract has not been changed.

In reference to Applicant's argument:

Claims 1-8 stand rejected under 35 U. S.C. § 102(b) as being anticipated by the MP reference.

Claim 1 recites: "assigning to the Object the classification of the identified preclassified data cluster or, if the Object vector rests outside of each of the plurality of preclassified data clusters, classifying the Object as an atypical cluster, the atypical cluster being associated with the position of the Object vector."

The MP reference discloses a dictionary definition of a vector. The MP reference discloses: "[i]n computer data structures, a one-dimensional array-a set of items arranged in a single column or row." Applicant notes that the Examiner read the elements involving the preclassified data clusters out of the claim. Applicant has amended claim 1 to clarify that preclassified data clusters are a portion of the claimed invention and should not be read out of the claims.

The MP reference does not disclose or suggest a method including "assigning to the Object the classification of the identified preclassified data cluster or, if the Object vector rests outside of each of the plurality of preclassified data clusters, classifying the Object as an atypical cluster, the atypical cluster being associated with the position of the Object vector."

.Examiner's response:

In substance, nothing has change with the amendments to claim 1. Para 3 above applies. The rationale of the First Office Action at page 4 applies.

Examiner's Note (EN): from the specification, claim 1 is simply a vector or a one dimensional array; to one of ordinary skill in the art, vectors have data of whatever length; abstraction is nothing more than the data of the vector (specification, p 5, l 1); since the steps did not form clusters, there simply are no clusters within which the vector rests; since the cluster does not exist, a status issue is moot; and atypical is merely the alternative to no cluster, at best a cluster of one vector; hence, claim 1 is nothing more than a non descript vector. Consequently, the MP definition applies to the claim. To one of ordinary skill in the art, the atypical is akin to an outlier.

***Claim Rejections - 35 USC § 102***

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by MP (Microsoft Press Computer Dictionary 1994, referred to as **MP**).

**Claim 1**

MP anticipates a. inputting a data stream that describes the Object; b. abstracting the data stream to calculate an Object vector that characterizes the data stream; c. identifying a preclassified data cluster of the plurality of the preclassified data cluster, if any, within which the Object vector rests; d. assigning to the Object the classification of the identified preclassified data cluster or, if the object vector rests within an atypical cluster, the atypical cluster being associated with the position of the Object vector (**MP**, p 408, c 2, 8-10; Examiner's Note (EN): from the specification, claim 1 is simply a vector or a one dimensional array; to one of ordinary skill in the art, vectors have data of whatever length; abstraction is nothing more than the data of the vector (specification, p 5, l 1); since the steps did not form clusters, there simply are no clusters within which the vector rests; since the cluster does not exist, a status issue is moot; and atypical is merely the alternative to no cluster; a singleton vector without use hence, claim 1 is nothing more than a non descript vector).

**Claim 2**

MP anticipates abstracting is performed by a process comprising selecting between 5 and 25 data points from the data stream (**MP**, p 408, c 2, 8-10; EN: to one of ordinary skill in the art, a vector has N data points where N is a real positive number).



**Claim 3**

MP anticipates identifying is performed by a process comprising computing the Euclidean distance between the centroid of a data cluster and the Object vector (**MP**, p 408, c 2, 8-10; EN: since the cluster does not exist, the Euclidean distance of a vector unto itself is without substance, one only has a vector remaining).

**Claim 4**

MP anticipates identifying is performed by a process comprising computing the normalized vector product of the Object vector and representing the centroid of a data cluster (**MP**, p 408, c 2, 8-10; EN: normalized vector product was not identified in the specification; since the cluster does not exist, one only has a vector remaining).

**Claim 5**

MP anticipates each data cluster is preclassified as having one of two status conditions (EN: the cluster of claim 1 does not exist (atypical) and hence the status of preclassified clusters is moot).

**Claim 6**

MP anticipates wherein each data cluster is preclassified as having one of three status conditions (EN: the cluster of claim 1 does not exist (atypical) and hence the status of preclassified clusters is moot).

**Claim 7**

MP anticipates the data streams consist of between 1,000 and 20,000 (**MP**, p 408, c 2, 8-10; EN: claim 1 is a vector and to one of ordinary skill in the art, a vector has N data points where N is a real positive number).

**Claim 8**

MP anticipates the length of the data streams consist of at least 1,000 data points (MP, p 408, c 2, 8-10; EN: claim 1 is a vector and to one of ordinary skill in the art, a vector has N data points where N is a real positive number).

**Claims 21, 22, 23**

MP anticipates a software product for a general-purpose digital computer, accompanied by instructions that the product can be used to perform the method of claim 1 (MP, p 87, c 1, 32-38).

***Conclusion***

1. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Correspondence Information***

Any inquiry concerning this information or related to the subject disclosure should be directed to the Examiner, Joseph P. Hirl, whose telephone number is (703) 305-1668. The Examiner can be reached on Monday – Thursday from 6:00 a.m. to 4:30 p.m.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Anil Khatri can be reached at (703) 305-0282.

Any response to this office action should be mailed to:

Commissioner of Patents and Trademarks,  
Washington, D. C. 20231;

or faxed to:

(703) 746-7239 (for formal communications intended for entry);

or faxed to:

(703) 746-7290 (for informal or draft communications with notation of "Proposed" or "Draft" for the desk of the Examiner).

Hand-delivered responses should be brought to:

Receptionist, Crystal Park II  
2121 Crystal Drive,

Application/Control Number: 09/883,196  
Art Unit: 2121

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Arlington, Virginia.



Joseph P. Hirl

March 10, 2004

*Ramesh Patel 3/11/04*  
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*For Anil Khatri*